#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

in re the Application of: LIU, et al.	Examiner:
Serial No.:	Exammer.
)	Group Art Unit:
Filed:	1
For: "On-Chip Inductors"	
ror. On-emp inductors	
)	
This is a Rule 1.53(b) divisional of United	
States Application entitled "Method for )	
Fabrication of On-Chip Inductors and Related	
Structure," Serial No. 09/627,505	
filed July 28, 2000, and assigned to the	
assignee of the present application.	)

# PRELIMINARY AMENDMENT TO DIVISIONAL APPLICATION

Honorable Commissioner of Patents and Trademarks Washington, D. C. 20231

Dear Sir/Madam:

This amendment is directed to the accompanying 37 CFR §1.53(b) divisional application. This divisional application is classified in <u>Class 257</u>, <u>Subclass 531</u>. The pending parent application Serial No. <u>09/627,505</u> is classified in <u>Class 438</u>, <u>Subclass 238</u> in Art Unit 2812. Please enter the following amendments in the present Rule 1.53(b) divisional application.

## In the Title:

Please delete the title "Method for Fabrication of On-Chip Inductors and Related Structure" and replace with --On-Chip Inductors--.

### In the Specification:

After the title, please insert the sentence: --This is a divisional of application Serial No. 09/627,505 filed July 28, 2000.--

## In the Claims:

Please cancel claims 1-23.

Please add the following new claims:

--37. A semiconductor chip comprising:

a first dielectric area having a first permeability;

a second dielectric area having a permeability conversion material interspersed therein such that a permeability of said second dielectric area is higher than said first permeability;

an inductor patterned in said second dielectric area, said inductor having first and second connection terminals, said first and second connection terminals being capable of providing connection to a device fabricated in said first dielectric area of said semiconductor chip.--

- --38. The semiconductor chip of claim 37 wherein said permeability conversion material is interspersed in said second dielectric area when said first dielectric area is covered with photoresist.--
- --39. The semiconductor chip of claim 37 wherein said first dielectric area comprises silicon dioxide.--
- --40. The semiconductor chip claim 37 wherein said first dielectric area comprises a low-k dielectric.--
- --41. The semiconductor chip of claim 37 wherein said second dielectric area comprises silicon dioxide. --
- --42. The semiconductor chip of claim 37 wherein said second dielectric area comprises a low-k dielectric.--
- --43. The semiconductor chip of claim 37 wherein said permeability conversion material is selected from the group consisting of nickel, iron, nickel-iron alloy, and magnetic oxide.--
- --44. The semiconductor chip of claim 37 wherein said permeability conversion material is interspersed in said second dielectric area by ion implantation.--

- --45. The semiconductor chip of claim 37 wherein said permeability conversion material is interspersed in said second dielectric area by ion sputtering.--
- --46. The semiconductor chip of claim 37 wherein said inductor comprises material selected from the group consisting of copper, aluminum, and copper-aluminum alloy.--
- --47. The semiconductor chip of claim 37 wherein said inductor is patterned as a square spiral.--
- --48. The semiconductor chip of claim 46 wherein said permeability conversion material is selected from the group consisting of nickel, iron, nickel-iron alloy, and magnetic oxide.--

### **REMARKS**

This is a divisional application of the pending parent application, Serial No. 09/627,505 filed July 28, 2000. This divisional application is filed during the pendency of the parent application. By this preliminary amendment, applicant has canceled claims 1-23 and has added new claims 37-48. Accordingly, claims 24-48 remain in the present Rule 1.53(b) divisional application. Consideration and examination of pending claims 24-48 is respectfully requested.

A true and correct copy of the parent application, including the specification, drawings and claims, as originally filed, is enclosed. Also enclosed is a true and correct copy of the combined declaration and power of attorney as filed in the parent application. Please direct all correspondence and communications to the undersigned attorneys of record.

Respectfully submitted,

Date: 01-02-01

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